

## ABSTRACT

A spacer grid used for placing and supporting fuel rods in nuclear reactor fuel assemblies is disclosed. The spacer grid of this invention has a plurality of inner strips intersecting each other to form a plurality of guide tube cells and a plurality of fuel rod cells, with a plurality of mixing blades projecting upward from the inner strips at intersections of the inner strips. The spacer grid further includes a plurality of perimeter strips to encircle the intersecting inner strips. Each of the perimeter strips is fabricated with a plurality of unit intermediate strips and a plurality of unit corner strips, with a grid spring provided on each of the unit strips. The grid spring includes a vertical opening formed at a central area of each of the unit strips, a vertical support part extending vertically between the central portions of top and bottom edges of the vertical opening, and a fuel rod support part provided at a central portion of the vertical support part while being bent to have an outward rounded cross-section. The vertical support part is bent at two steps, and the fuel rod support part is bent to be in equiangular contact with each of the fuel rods, thus accomplishing a uniform contact pressure distribution when the fuel rod support part is in contact with each of the fuel rods.